

Amendments to the Claims:

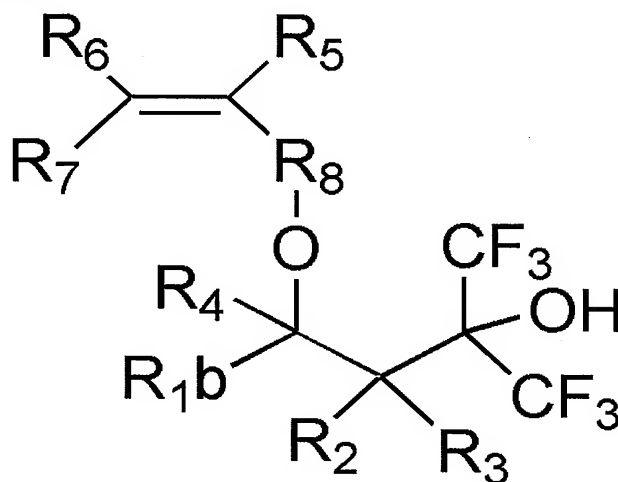
The following listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1-2. (Canceled)

3. (Currently Amended) A fluorine-containing cyclic compound represented by the following general formula (3):

~~{Chemical Formula 32}~~



(3)

~~in the general formula (3), wherein~~

R_{1b} is a C₁-C₂₅ cyclic alkyl group, cyclic alkenyl group, cyclic alkynyl group, aryl group, or heterocyclic group, and may contain fluorine atom, oxygen atom, sulfur atom, nitrogen atom or an atomic group containing a carbon-carbon double bond;

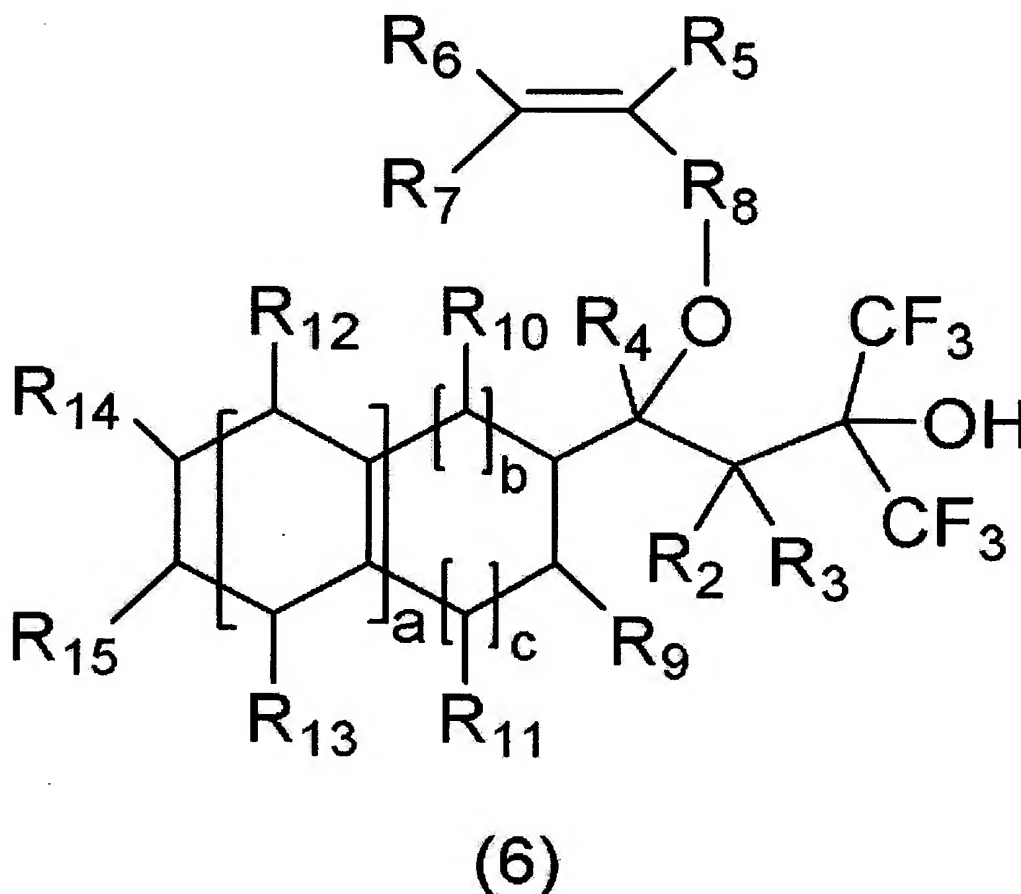
each of R₂ to R₇ is independently a hydrogen atom, a halogen atom, or a C₁-C₂₅ straight-chain, branched or cyclic alkyl group, and may contain fluorine atom, oxygen atom, sulfur atom, nitrogen atom or an atomic group containing a carbon-carbon double bond; and

R₈ is a carbonyl group or methylene group, or a single bond.

4-5. (Canceled)

6. (Currently Amended) A fluorine-containing cyclic compound according to claim 3, which is represented by the following general formula (6):

[Chemical Formula 35]



~~in the general formula (6), wherein~~

each of R2 to R7 and R9 to R15 is independently a hydrogen atom, a halogen atom, or a C₁-C₂₅ straight-chain, branched or cyclic alkyl group, and may contain fluorine atom, oxygen atom, sulfur atom, or nitrogen atom;

R8 is a carbonyl group or methylene group or a single bond;

R10 and R11, R12 and R13, or R14 and R15 may be bonded together to form a ring; in such case, it is an C₁-C₂₅ alkylene group that may contain oxygen, sulfur, nitrogen or hetero atom; and

"a" is 0 or 1,

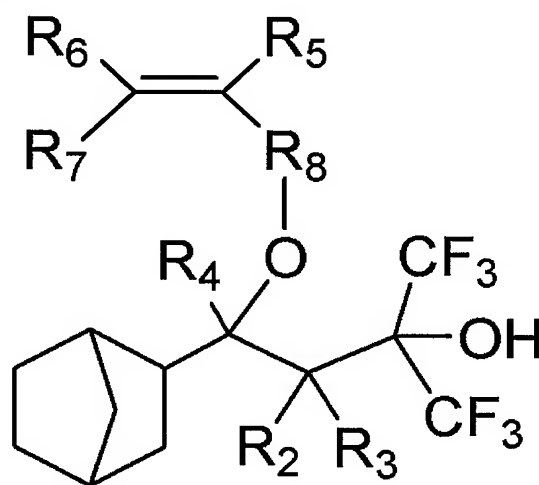
"b" is an integer of 0-2, and

"c" is an integer of 0-2.

7-8. (Canceled)

9. (Currently Amended) A fluorine-containing cyclic compound according to claim 3, which is represented by the following general formula (9):

[Chemical Formula 38]



(9)

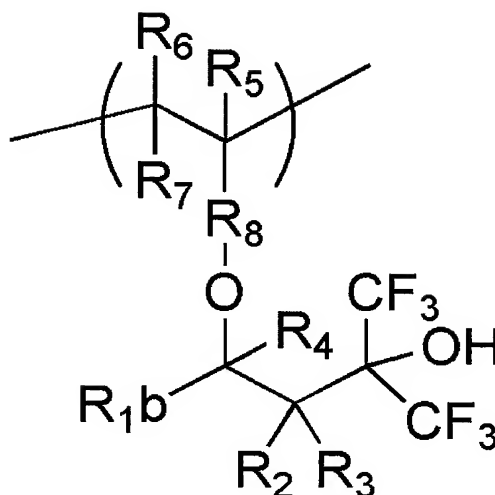
in the general formula (9), wherein

each of R_2 to R_7 is independently a hydrogen atom, a halogen atom, or a C_1 - C_{25} straight-chain, branched or cyclic alkyl group, and may contain fluorine atom, oxygen atom, sulfur atom, or nitrogen atom; and

R_8 is a carbonyl group or methylene group or a single bond.

10. (Currently Amended) A fluorine-containing polymer compound having a weight average molecular weight of 1,000 to 1,000,000, ~~which is characterized in~~ comprising a repeating unit represented by the following general formula (10):

[Chemical Formula 39]



(10)

~~in the general formula (10), R1b and R2 to R8 are defined as in claim 3~~
wherein

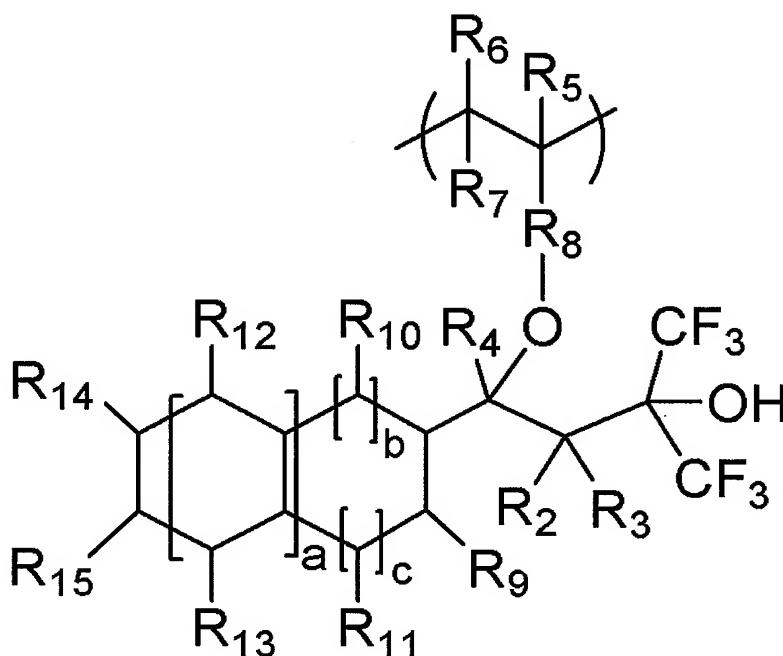
R1b represents a C₁-C₂₅ cyclic alkyl group, cyclic alkenyl group, cyclic alkynyl group, aryl group, or heterocyclic group, and may contain fluorine atom, oxygen atom, sulfur atom, nitrogen atom or an atomic group containing a carbon-carbon double bond;

each of R₂ to R₇ independently represents a hydrogen atom, a halogen atom, or a C₁-C₂₅ straight-chain, branched or cyclic alkyl group, and may contain fluorine atom, oxygen atom, sulfur atom, nitrogen atom or an atomic group containing a carbon-carbon double bond; and

R₈ represents a carbonyl group or methylene group, or a single bond.

11. (Currently Amended) A fluorine-containing polymer compound ~~having a weight average molecular weight of 1,000 to 1,000,000, which is characterized in comprising a~~ according to claim 10, wherein the repeating unit is represented by the following general formula (11):

~~{Chemical Formula 40}~~



(11)

in the general formula (11), R2 to R15 and a, b and c are defined as in claim 6 wherein

each of R₂ to R₇ and R₉ to R₁₅ independently represents a hydrogen atom, a halogen atom, or a C₁-C₂₅ straight-chain, branched or cyclic alkyl group, and may contain fluorine atom, oxygen atom, sulfur atom, or nitrogen atom;

R₈ represents a carbonyl group or methylene group or a single bond;

R₁₀ and R₁₁, R₁₂ and R₁₃, or R₁₄ and R₁₅ may be bonded together to form a ring; in such case, it is an C₁-C₂₅ alkylene group that may contain oxygen, sulfur, nitrogen or hetero atom; and

"a" is 0 or 1,

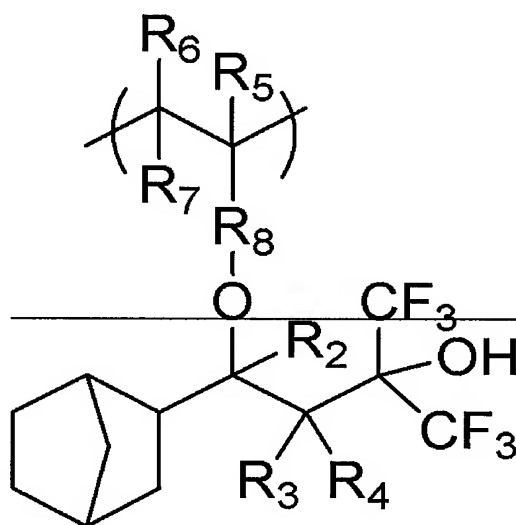
"b" is an integer of 0-2, and

"c" is an integer of 0-2.

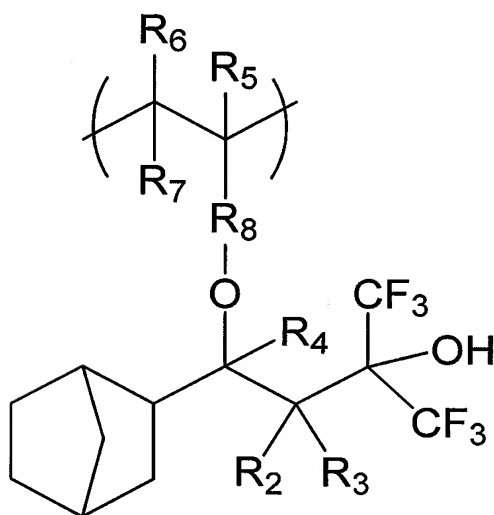
12. (Currently Amended) A fluorine-containing polymer compound having a weight average molecular weight of 1,000 to 1,000,000, which is characterized in

~~comprising a~~ according to claim 10, wherein the repeating unit is represented by the following general formula (12):

[Chemical Formula 41]



(12)



(12)

in the general formula (12), R₂ to R₈ are defined as in claim 9 wherein each of R₂ to R₇ independently represents a hydrogen atom, a halogen atom, or a C₁-C₂₅ straight-chain, branched or cyclic alkyl group, and may contain fluorine atom, oxygen atom, sulfur atom, or nitrogen atom; and

R₈ represents a carbonyl group or methylene group or a single bond.

13-17. (Canceled)

18. (Previously Presented) A fluorine-containing polymer compound according to claim 10, which comprises a repeating unit having an acid-labile group.

19. (Canceled)

20. (Previously Presented) A resist material comprising a fluorine-containing polymer compound according to claim 10.

21. (Previously Presented) A chemically-amplified resist material comprising a resist material according to claim 20 and a photoacid generator.

22. (Previously Presented) A pattern forming process comprising the steps of:

- (a) applying a resist material according to claim 20 to a substrate;
- (b) subjecting the substrate to a heat treatment;
- (c) conducting an exposure, using a high-energy ray of a wavelength of 300nm or less or an electron beam, through a photomask;
- (d) subjecting the exposed resist film to a heat treatment; and conducting a development treatment.

23. (Original) A pattern forming process according to claim 22, wherein the high-energy ray used is F₂ excimer laser, ArF excimer laser, KrF excimer laser or soft X-ray.

24. (Previously Presented) A fluorine-containing polymer compound according to claim 10, wherein hydroxyl groups contained in the molecule are partially or entirely protected with protecting groups.